Index of Claims

| A  | -11-  | :     | . 10- |       | N 1 - |
|----|-------|-------|-------|-------|-------|
| Ap | piica | TOIJE | 1/60  | ntrol | NO.   |

10/829,394

Examiner

Lori L. Coletta

Applicant(s)/Patent under Reexamination

HARIMA ET AL.

Art Unit

3612

| √ | Rejected |
|---|----------|
| = | Allowed  |

| _ | (Through numeral)<br>Cancelled |
|---|--------------------------------|
| Ļ | Restricted                     |

| Z | Non-Elected  |
|---|--------------|
| ı | Interference |

| A | Appeal   |
|---|----------|
| 0 | Objected |

| Cla             | aim      | Date   |          |   |                |              |              |                 | Cla                 | im       |          |          |          | C               | ate      |           |          |              | ]               | Cla      | aim              |   |                 | -        |               | Date     | <del>-</del> |          |               |           |          |          |          |
|-----------------|----------|--|----------|---|----------------|--------------|--------------|-----------------|---------------------|----------|----------|----------|----------|-----------------|----------|-----------|----------|--------------|-----------------|----------|------------------|---|-----------------|----------|---------------|----------|--------------|----------|---------------|-----------|----------|----------|----------|
| _               | ਲ        |  |          |   |                |              |              |                 |                     |          |          | ı        | ā        |                 |          |           | - [      |              |                 |          |                  |   |                 | 16       |               |          |              |          |               |           |          |          |          |
| Final           | Original |  |          |   | l              |              |              |                 |                     |          | '        | Final    | Original |                 |          | ı         |          |              | ł               | -        | -                |   | Final           | Original |               |          |              |          |               |           |          |          |          |
| iĒ              | Ž        | ı  |          |   | l              |              |              |                 |                     |          | li       | 급        | Ę        |                 |          |           |          | Ī            |                 | 1        | -                | 1 | 证               | rig      |               | ı        |              |          |               |           |          |          | ľ        |
|                 | )        | <u> </u>   |          |   |                |              |              |                 |                     |          |          |          | O        |                 |          |           |          |              |                 |          | -1               |   | 1               | 0        |               |          |              |          |               |           |          | - 1      |          |
| 1               | 1        |  |          |   |                |              |              |                 |                     |          |          |          | 51       |                 |          | T         | T        | T            | T               | T        | T                | 1 |                 | 101      |               |          |              |          |               |           |          |          |          |
| 2               | 2        | П  |          |   |                |              |              |                 |                     |          |          |          | 52       | П               |          |           | T        | T            |                 | Ť        | 7                | 1 |                 | 102      |               |          |              |          |               |           |          | T        |          |
| 3               | 3        |  |          |   |                | Γ            |              | Π               |                     |          |          |          | 53       |                 |          |           | T        | 寸            | T               | $\top$   |                  | 1 |                 | 103      |               |          |              |          |               |           |          | ヿ        |          |
|                 | 4        |  |          |   |                |              |              | Г               |                     |          |          |          | 54       | П               | $\Box$   |           |          | $\neg$       | $\neg \uparrow$ | $\neg$   | 1                | 1 |                 | 104      |               | $\neg$   |              |          |               |           |          |          | _        |
| 4               | 5        |  |          |   |                |              |              |                 |                     |          |          |          | 55       |                 |          | T         | 一        | ヿ            | T               | 十        | 1                | 1 |                 | 105      |               | $\Box$   |              |          | _             |           |          |          |          |
| 5               | 6        |  |          |   | Г              |              |              |                 |                     |          |          |          | 56       | П               |          | 一         | ヿ        | ヿ            |                 | 7        |                  | 1 |                 | 106      |               | $\Box$   |              |          |               |           |          |          |          |
|                 | 7        |  |          |   |                |              | İ            |                 |                     | $\neg$   |          |          | 57       |                 | T        | Ħ         | 7        | 寸            | $\neg$          | $\neg$   | 1                | 1 |                 | 107      |               |          |              | -        |               |           | $\neg$   | 寸        | $\dashv$ |
|                 | 8        |  |          |   |                |              | Τ            |                 |                     |          | <u> </u> |          | 58       |                 |          | $\neg$    | 寸        | $\neg$       | T               | ┪        | ╅                | 1 |                 | 108      |               |          |              |          |               |           |          |          | $\neg$   |
|                 | 9        |  |          |   | П              | $\vdash$     |              |                 |                     | $\neg$   |          |          | 59       |                 |          | 寸         | $\dashv$ | 寸            | 7               | 十        | _                | 1 |                 | 109      | $\dashv$      | $\dashv$ |              | _        |               |           |          | 一        | $\neg$   |
|                 | 10       |  |          |   |                | $\vdash$     |              |                 | П                   | ┪        |          |          | 60       | Н               | 7        | _         | $\dashv$ | $\dashv$     | -               | ╅        | $\top$           | 1 |                 | 110      | $\dashv$      |          |              |          |               | _         | $\dashv$ | ┪        | $\dashv$ |
|                 | 11       | $\vdash$   | П        |   | Г              | Г            | T            |                 | $\vdash$            | $\dashv$ |          | _        | 61       | Н               | $\dashv$ | $\neg$    |          | $\dashv$     | $\dashv$        | $\dashv$ | $\dashv$         | 1 |                 | 111      | $\vdash$      | -        |              | $\vdash$ | $\vdash$      |           | $\dashv$ | $\dashv$ | $\dashv$ |
| <b>—</b>        | 12       | Г  | $\sqcap$ |   |                | r            | T            | 1               | $\vdash$            | $\dashv$ |          |          | 62       | Н               | $\dashv$ | $\dashv$  | $\dashv$ | $\dashv$     | +               | +        | +                | 1 | -               | 112      | $\vdash$      | $\dashv$ |              |          |               | $\vdash$  | $\dashv$ | $\dashv$ | $\dashv$ |
| <u> </u>        | 13       |  | $\Box$   |   | 1              | $\vdash$     | t            | <b>†</b> –      | М                   | $\dashv$ |          | -        | 63       | $\vdash \vdash$ | $\dashv$ | $\dashv$  | -        | $\dashv$     | +               | +        | +                | 1 | -               | 113      | $\vdash$      | $\vdash$ | -            | $\vdash$ |               | $\vdash$  | -        | ᅱ        |          |
|                 | 14       | _  |          |   | $\vdash$       | $\vdash$     | 1            | $\vdash$        | H                   | $\dashv$ | $\vdash$ |          | 64       |                 | -        | $\dashv$  | $\dashv$ | 十            | +               | 十        | $\dashv$         | 1 | $\vdash$        | 114      | $\vdash$      | $\dashv$ | _            | $\vdash$ | $\vdash$      |           | $\dashv$ | $\dashv$ | ⊣        |
|                 | 15       | <del>                                     </del> | Н        |   |                | 1            | $\vdash$     | $\vdash$        | H                   | $\dashv$ | $\vdash$ | $\dashv$ | 65       | $\vdash$        | +        | +         | +        | $\dashv$     | +               | +        | +                | 1 | $\vdash$        | 115      | $\vdash$      | -        |              | $\vdash$ | $\vdash$      | $\vdash$  | $\dashv$ | $\dashv$ | $\dashv$ |
|                 | 16       | $\vdash$   | H        |   | $\vdash$       | $\vdash$     | $\vdash$     | H               | $\vdash$            | $\dashv$ | $\vdash$ | +        | 66       | $\vdash$        | $\dashv$ | $\dashv$  | $\dashv$ | +            | +               | +        | +                | 1 | $\vdash$        | 116      |               | -+       |              | $\vdash$ | $\vdash$      | $\dashv$  | $\dashv$ | $\dashv$ | $\dashv$ |
| <b></b>         | 17       |  | $\vdash$ |   | $\vdash$       | -            | $\vdash$     | $\vdash$        | Н                   | $\dashv$ | $\vdash$ | -        | 67       |                 | $\dashv$ | $\dashv$  | $\dashv$ | $\dashv$     | +               | +        | +                | 1 | $\vdash$        | 117      | H             | +        |              | $\dashv$ | $\dashv$      | $\dashv$  | $\dashv$ | $\dashv$ | $\dashv$ |
|                 | 18       | $\vdash$   | $\vdash$ |   | <del>  -</del> | $\vdash$     | $\vdash$     | +-              | $\vdash$            | $\dashv$ | $\vdash$ |          | 68       | $\vdash$        | $\dashv$ | -         |          | $\dashv$     | +               | +        | +-               | 1 | -               | 118      | $\vdash$      | $\dashv$ |              |          | $\dashv$      | $\dashv$  | -        |          |          |
| $\vdash$        | 19       | _  | $\vdash$ |   | $\vdash$       |              | $\vdash$     | +-              | Н                   | $\dashv$ | $\vdash$ |          | 69       | $\vdash$        | -        | -         | -        | $\dashv$     | +               | +        | +                | 1 | $\vdash$        |          | $\dashv$      | $\dashv$ |              |          | $\dashv$      | $\dashv$  | -        | -        | $\dashv$ |
| <u> </u>        | 20       | _  | -        |   | $\vdash$       | -            | ⊢            | -               | Н                   | $\dashv$ | -        | -        |          | $\vdash$        | -        | -         | $\dashv$ | +            | +               | +        |                  | - |                 | 119      |               | -        |              |          | -             |           |          |          | -        |
|                 | 21       | _  | Н        |   |                | H            | ├-           | $\vdash$        | Н                   |          | -        | $\dashv$ | 70       | -               | -        | $\dashv$  | $\dashv$ | -            | +               | -        | +                | ┨ | $\vdash$        | 120      | $\rightarrow$ | +        | _            | _        |               |           | _        | _        | -        |
|                 | 22       |  |          | _ |                | ⊢            |              | H               | H                   | $\dashv$ | -        | _        | 71       | $\vdash$        | $\dashv$ |           | $\dashv$ | $\dashv$     | -               | +        | +                | - | <u> </u>        | 121      |               | -        | _            | $\dashv$ | $\dashv$      | -         | -        |          | _        |
| <b>-</b>        |          | _  | $\vdash$ | _ | -              | -            | ₩            | $\vdash$        | $\vdash$            | $\dashv$ | $\vdash$ | -        | 72       | $\vdash$        | -        | $\dashv$  | $\dashv$ | -            | -               | 4        | -                | 4 |                 | 122      |               |          |              | _        |               |           | $\dashv$ | _        | _        |
|                 | 23       | _  | $\dashv$ | _ |                | <del> </del> | ├            | Н               | $\vdash$            | -        | -        | -        | 73       |                 | -        | $\dashv$  | $\dashv$ | -            |                 | -        | +                | ┨ |                 | 123      |               | -        |              | _        | _             | <b></b>   | _        |          | _        |
|                 | 24       | _  |          |   |                | -            | <b>-</b>     | Н               | $\vdash$            | -        | -        | -        | 74       | $\sqcup$        | -        | -         | -        | 4            | 4               | -        | +                | - |                 | 124      |               | -        |              |          |               | $\dashv$  | _        | $\dashv$ | _        |
|                 | 25       | _  | $\dashv$ | - | H              | -            | <del> </del> | Н               | $\vdash$            | -        | $\vdash$ | +        | 75       | $\dashv$        | $\dashv$ | -         | $\dashv$ | -            | _               |          | -                | 4 | <b></b>         | 125      | _             |          |              | _        |               |           | _        | -        | 4        |
|                 | 26<br>27 | _  | $\dashv$ |   |                | <del> </del> | <del> </del> | $\vdash$        | Н                   |          | $\vdash$ | -        | 76       |                 | -        | $\dashv$  | -        | $\dashv$     | _               | _        | - -              | 4 | $\vdash$        | 126      | _             | $\dashv$ | _            |          | $\rightarrow$ |           |          | -        | _        |
|                 |          |  |          |   | $\vdash$       | ⊢            | -            | H               | $\vdash \vdash$     | -        |          |          | 77       | _               |          | 4         | $\dashv$ | +            | _               | +        | 4—               | 4 | $\vdash$        | 127      | _             | 4        | _            | -        |               | _         | _        | 4        | _        |
|                 | 28       | -  |          |   | <u> </u>       | <del> </del> | _            | Н               | $\sqcup$            |          | $\vdash$ | -        | 78       | _               | 4        | 4         | 4        | 4            | _               | +        | +-               | - |                 | 128      |               | _        |              |          | _             | _         | _        | -        | _        |
| <u> </u>        | 29       |  |          |   | _              | <u> </u>     |              |                 | Н                   | _        | $\vdash$ | -+       | 79       | _               | -        |           |          | 4            | _               | +        |                  | 4 |                 | 129      | _             | _        |              | _        | _             | _         | _        | _        | _        |
|                 | 30       |  |          |   | <u> </u>       | <u> </u>     |              | $\vdash$        | $\vdash \vdash$     | $\dashv$ | -        |          | 80       | $\sqcup$        |          | -4        |          | $\dashv$     | +               | $\perp$  | -                | 1 | $\vdash \vdash$ | 130      | _             | _        | _            | $\dashv$ | _             | _         | _        | _        | _        |
|                 | 31       |  |          |   | $\vdash$       |              | $\vdash$     | $\vdash$        | $\vdash \vdash$     | -        | $\vdash$ | 4        | 81       | -               | _        | 4         | _        | $\downarrow$ | +               | 4        | $\perp$          | 1 | <b></b>         | 131      |               |          | _            | _        |               |           | _        |          |          |
|                 | 32       |  |          | _ |                | ⊢            | <u> </u>     | $\vdash \vdash$ | $\vdash \downarrow$ | _        | $\vdash$ | _        | 82       | $\sqcup$        | 4        | _         |          | 4            | +               | 4        | -                | 1 | <b></b>         | 132      | _             | 4        | _            | $\dashv$ | _             | _         | 4        | _        | ᅬ        |
|                 | 33       |  |          | - | $\vdash$       | <u> </u>     | $\vdash$     | $\vdash$        | -                   | _        | $\vdash$ |          | 83       |                 | -        | $\dashv$  | 4        | 4            | _               |          | _                | 4 | $\vdash$        | 133      | _             | $\dashv$ | _            |          | _             |           | 4        | 4        | _        |
|                 | 34       | $\vdash$   | _        | _ | <u> </u>       | -            | $\vdash$     | Н               | ${oxed}$            | _        | <u> </u> | _        | 84       | $\sqcup$        | _        | $\dashv$  | 4        | $\dashv$     | $\perp$         | $\perp$  | 4_               | 1 | $\square$       | 134      | _             | _        | _            | _        | _             | _         |          | _        | _        |
|                 | 35       | $\vdash$   | _        |   | <u> </u>       | L            | _            | Н               | $\sqcup$            | _        | <u> </u> | _        | 85       | $\square$       | _        | 4         | 4        | 4            | $\perp$         | _        | 4                | 1 | $\vdash$        | 135      |               | _        | _            |          |               |           | _        | _        | _        |
|                 | 36       |  |          |   | $\vdash$       | $\vdash$     |              | <u> </u>        |                     | _        | $\vdash$ | _        | 86       | Ц               |          | _ļ        | _        | _ -          | 4               | _        | _                | 1 | $\square$       | 136      | _             | _        | _            |          | _             |           | _        | _        | Ц        |
| $\vdash \vdash$ | 37       | <u> </u>   | $\Box$   | _ | $\vdash$       | <u> </u>     | <u> </u>     | Ш               | Ш                   | _        | <u> </u> | _        | 87       | $\Box$          | _        | _         |          | _[           | _               | $\perp$  |                  | 1 | $\square$       | 137      | $\Box$        | $\perp$  | _            |          | _             | _         | $\perp$  | $\perp$  | Ц        |
|                 | 38       | Щ  |          |   | $\vdash$       | $\vdash$     | _            | $\sqcup$        | Ш                   | ᆜ        | $\vdash$ | _        | 88       | Ш               |          | _         | _        | _            | $\perp$         | $\perp$  |                  | 1 | $\square$       | 138      |               |          | _            |          | $\perp$       |           |          | $\perp$  | Ц        |
| oxdot           | 39       |  |          |   |                | Щ            | <u> </u>     | Ш               | Ц                   |          | $\vdash$ | _        | 89       |                 |          | $\perp$   |          | $\perp$      | $\perp$         | $\perp$  |                  | ] | igsquare        | 139      |               | [        |              |          |               |           | _[       | _[       |          |
|                 | 40       |  |          |   | Ш              |              |              | L.l             | $\sqcup \bot$       |          | $\perp$  | $\perp$  | 90       |                 | _[       | _[        | _[       | _ .          |                 |          |                  | 1 |                 | 140      |               |          | _]           | I        |               | $\_ oxed$ |          |          |          |
|                 | 41       |  |          |   | Ш              | _            |              | Ш               | Ш                   | _        | $\perp$  | _        | 91       | Ш               |          | $\perp$   | _[       | [            |                 |          |                  | 1 |                 | 141      | $\Box$        |          | ]            | ]        | [             | [         | $\Box$   |          |          |
|                 | 42       |  |          |   | Ш              | _            |              | Ш               | Ш                   | $\Box$   | L        | $\perp$  | 92       |                 | $\perp$  |           |          |              |                 | $\perp$  |                  |   |                 | 142      |               |          |              |          |               |           | $\Box$   |          |          |
|                 | 43       |  |          |   |                |              |              | $\Box$          | Ш                   |          | L        |          | 93       |                 |          | $\Box$    |          |              | $\perp$         | $\Box$   |                  |   |                 | 143      |               |          |              |          |               |           | $\Box$   |          |          |
|                 | 44       |  |          |   |                |              |              |                 |                     |          |          |          | 94       |                 |          | $\Box$    | $\Box$   | $\Box$       | $oxed{T}$       | $\int$   |                  | J |                 | 144      |               |          |              |          |               |           | $\Box$   |          | $\Box$   |
|                 | 45       |  |          |   |                |              |              |                 |                     |          |          |          | 95       |                 |          | $_{ m J}$ | $\Box$   | $\Box$       | Ι               | Ι        |                  | ] |                 | 145      |               | $\Box$   |              |          | $\Box$        |           | $\Box$   | $\neg$   |          |
|                 | 46       |  |          |   |                |              |              |                 |                     |          |          |          | 96       |                 |          |           |          |              |                 | ┚        | $\mathbf{I}^{-}$ | ] |                 | 146      |               |          |              |          |               |           |          | $\neg$   | $\Box$   |
|                 | 47       |  |          |   |                |              |              |                 |                     |          |          |          | 97       |                 |          | $\neg$    |          |              | Т               | $\neg$   | $\top$           | ] |                 | 147      |               | $\neg$   |              | $\neg$   | $\neg$        | $\neg$    | $\neg$   |          | $\neg$   |
|                 | 48       |  |          |   |                |              |              |                 |                     |          |          | 寸        | 98       |                 | $\neg$   | 寸         | T        | $\neg$       | 1               | T        |                  | 1 |                 | 148      |               | $\neg$   |              | $\neg$   |               |           | $\neg$   |          |          |
|                 | 49       |  |          |   |                |              |              |                 |                     |          |          |          | 99       | $\neg$          | $\dashv$ | $\neg$    |          | $\dashv$     | $\neg$          | $\top$   | 1                | 1 |                 | 149      | 寸             | $\neg$   | $\dashv$     | $\neg$   | 寸             | 寸         | 寸        | $\dashv$ | $\neg$   |
|                 | 50       | $\neg$   | $\Box$   |   | П              |              |              | П               |                     | $\neg$   |          |          | 100      | $\dashv$        | 寸        | $\top$    | $\dashv$ | 十            | $\top$          | $\top$   |                  | 1 |                 | 150      | _             | $\neg$   | $\dashv$     | _        | 寸             | $\dashv$  | $\dashv$ | _        | $\dashv$ |
|                 | <u> </u> |  |          |   | Ц.,,           |              |              |                 |                     |          | _        | _        | .00      |                 |          |           |          |              |                 |          |                  | J | Щ.              | 130      |               |          | _            |          |               |           |          |          |          |